

#### IN THE UNIT STATES PATENT AND TRADEMARK FFICE

First Named Inventor	:	Matthew P. Dugas								
Appln. No.	:	10/685,289		•						
Filed	: .	October 14, 2003				Group A	rt Unit:	1743		
Title	:	Solid State Membra Measurement and C Molecular Sized San	haracterization			Examine	r.	Unknow	<b>'11</b>	
		DECLARATION	FOR UTILIT (37 C.F.R		NT API	PLICATI	ON			
As a bel	ow named	inventor, I hereby de	clare that my r	nailing ad	idress ar	d citizens	hip are as	stated belo	w.	
	d names a	original, first and sole te listed below) of the								
Sold She w	ciels and	Channel Device for t	e Measmeille Samp			union of A	tomic and	Voletila	N.	
the spec	fication o		CARROLL STREET	Laborato ,		Complement (192)	and Chapter to the C		and the same of	Sport Mirts
is at	tached her	eto OR								
was filed on October 14, 2003 as United States Application Number 10/685,289 or PCT International Application Number and amended on (if applicable).										
I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.							ng the			
I acknowledge the duty to disclose information known to me that is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.						ation.				
other than the U	or's certific nited State patent or in	eign priority benefits cate, or 365(a) of any s of America, listed to ventor's certificate, of ity is claimed.	PCT international period perio	onal appli e also iden	cation w stiffed b	hich designation in the contract of the contra	gnated at le hecking th	ast one co e box, any	untry forci	en.
Prior Fore		Comb	Foreign Fili			ity Not		ed Copy A		
whhteshoft M	unact(8)	Country	(MM/DD/)	IIII)	<u>Cla</u>	imed	Yes		No	<del>,                                    </del>
					<u>L</u>			-	붐	
							Ö		古	
I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.										
Application Number(s)				Fil	ing Date	MM/DD/	(777)			
60/418,507				10/15/20				/		

#### PLEAL DIRECT ALL CORRESPONDENCE TOLK

The address associated with Customer Number, 25763, currently:

Name	Devan V. Padmanabhan			
Address	DORSEY & WHITNEY LLP Intellectual Property Department Suite 1500 50 South Sixth Street Minneapolis, MN 55402-1498	CUSTOMER NUMBER 25763		
Telephone	612-340-7990			
Fax	612-340-8856			

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Sole or First Im	entor:			
Gi	ven Name (First and	middle)		Family Name or Surname
Matthew P.		1	Dugas	
Inventor's Signature	Wall	then I no	a	Date: 3/25/04
Residence	St. Paul City	Minnesota State	55108 Zip	Citizenship: US
Post Office Address	2324 Valentin	Avenue		



Docket: 14505.01

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named	Matthew P. Dugas		
Inventor:			
Appln. No.:	10/685,289		
Filed:	October 14, 2003	Examiner:	Unknown
Title:	Solid State Membrane Channel Device for	Group Art Unit:	1743
	the Measurement and Characterization of		
	Atomic and Molecular Sized Samples		

## **POWER OF ATTORNEY**

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir.

In the above-referenced patent application, on behalf of Advanced Research Corporation, I hereby appoint the Dorsey & Whitney LLP attorneys and agents associated with <u>Customer Number 25763</u> to prosecute the patent application identified above and to transact all business in the Patent and Trademark Office connected therewith, including full power of association, substitution, and revocation.

Please address all telephone calls to: Devan V. Padmanabhan at (612) 340-7990.

Please address all correspondence to Devan V. Padmanabhan at the address corresponding to Customer Number 25763, currently:

DORSEY & WHITNEY LLP
Intellectual Property Department
Suite 1500
50 South Sixth Street
Minneapolis, Minnesota 55402-1498

The undersigned (whose title is supplied	below) is empowered to sign this statement on
behalf of Advanced Research Corporation.	. \ ( )
Dated: 3 25 04	Signature: Matthew Dugas Title: CEO



Docket: 14505.01

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named	Matthew P. Dugas			
Inventor:	10/606 200			
Appln. No.:	10/685,289 October 14, 2003	Examiner: Unknown		
Piled: Tide:	October 14, 2003 Solid State Membrane Channel			
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	and Molecular Sized Samples	TOTAL OF ALL PARTY.		
•	SUBMISSION UNDE	R 37 C.F.R. § 3.73(b)		
	ssignment Recordation Services	I hereby certify that this document is being seat via First Class U.S. mail addressed to: Mail Stop Assignment		
	e US Patent and Trademark Office	Recordation Services, Director of the US Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 on this		
P.O. Box 145				
Alexandria, \	/A 22313-1450			
PA COTAGE S	2 NO. 407 207 5005	Transes Cosc		
FACSIMILA Sir:	E NO.: 703.306.5995	(Signature)		
l.	An assignment from the in above, a copy of which is attached	ventor(s) of the patent application identified  .		
OR	•			
2.	A chain of title from the in above, to the current assignee as s	ventor(s), of the patent application identified hown below:		
a,	•	e U.S. Patent and Trademark Office at Reel f which is attached.		
b.	From: To:			
-		e U.S. Patent and Trademark Office at Reel which is attached.		
		below) is empowered to sign this statement on		
behalf of Ad	vanced Research Corporation.	(1). $(1)$		
Dated:	3/25/04	Signature: Name: Matthew Sugas		
		Title: CEO		

# ASSIGNMENT

Attorney Docket No.: 14505.01

Page 1 of 1

First Named Inventor: Matthew P. Dugas

Tide: Solid State Membrane Channel Device for the Measurement and Characterization of Atomic and

Molecular Sized Samples

WHEREAS, I. Matthew P. Dugas, residing in St. Paul, Minnesota 55108, have invented cortain new and useful improvements as described in an application entitled Solid State Membrane Channel Device for the Measurement and Characterization of Atomic and Molecular Sized Samples for Letters Patent of the United States, the application being identified in the United States Parent and Trademark Office by Application No. 10/685,289, filed October 14, 2003; and

WHEREAS. Advanced Research Corporation, a corporation organized and existing under the laws of the State of Minnesota, and having offices at 815 14th Avenue SE, Minneapolis, MN 55414, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the application, and any and all Letters Patent or similar legal protection, foreign or domestic, to be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, I transfer to Assignee, its successors and assigns, my entire right, title, and interest in and to the invention, the above-identified patent application, corresponding domestic applications (including divisionals, continuations, and continuations-in-part), corresponding foreign applications, all Letters Patent or similar legal protection issuing thereon, and all rights and benefits under any applicable treaty or convention; and I authorize the Commissioner of Patents and Trademarks of the United States or foreign equivalent thereof to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries.

I represent to the Assignce, its successors and assigns, that I have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I, my executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining. and enforcing the Letters Patent or similar legal protection on the invention in any and all soundries.

CERTIFICATE OF ACKNOWLEDGMENT

Subscribed and sworn to before me, a Notary Public, this 25 day of March

(SEAL)

